

Excellence: An Immodest Proposal

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Abstract: A commentary that addresses the responsibility and moral obligation of the education community to engage in active investigations of teaching practices and their consequences for students.

Essay:

Recently, I participated in a site visit to the teaching hospital of a major American medical school. These visits are an integral part of the Carnegie Foundation's ten-year program of research on how lawyers, engineers, clergy, school teachers, nurses, and physicians are taught and how they learn. On this visit, I joined a team of students and faculty in the daily ritual of clinical rounds.

I use the term "ritual" quite precisely: the clinical-rounds team follows the same pedagogical pattern daily as it moves from patient to patient and reviews the status of each. The team I observed included a chief resident, a third-year resident, two first-year residents, two third-year medical students beginning their internal medicine rotation, and a pharmacy student on internship. Each of seven patients comprised a "lesson" within a unit of instruction. We stopped outside every room. The resident or medical student responsible for that patient gave a report that followed a strict outline. We talked about what had changed from the previous day. Patients ranged from someone who had been in the intensive care unit for less than twenty-four hours to one who had been in a coma for thirty days. After thirty days of clinical investigation, the causes of this patient's condition were still unknown.

Next, the chief resident discussed what had occurred during the rounds with the third-year resident in a preceptor interaction, essentially like a supervising teacher with a student teacher. They reviewed how rounds had gone pedagogically and talked about

what other questions one might have asked, what other aspects of patients' conditions one might have noted, and how well patients were managed and whether to do something different. We then moved to teaching rounds, in which the chief resident presented a didactic seminar on pulmonary function tests.

The day ended with “M&M” (Morbidity and Mortality), otherwise known as, “Where Did We Screw Up and What Can We Learn from It?” Pretty much the same group from morning rounds reconvened, joined by other faculty. Their goal was quality assurance. They reviewed at an institutional level one of their most persistent failures, namely the unacceptably high infection rate in the intensive care unit, primarily associated with running central lines into arteries (a procedure some readers will know in detail from Atul Gawande's wonderful book about the training of surgeons, *Complications: A Surgeon's Notes on an Imperfect Science*.) Data indicated that the infection rate is higher under certain circumstances, lower under others. Everyone in the system was learning. In fact, an assistant professor ran the session, with full professors learning alongside third-year clerks.

This kind of communal questioning and learning is compelling. Where in higher education more generally do we find an institutional pressure to come together and ask why students are not learning mathematics or economics well, and what to do institutionally about that? What I watched at this teaching hospital was an institution actively investigating the quality of its work, knowing, caring, and operating corporately to improve and learn from its collective experience. This is an important model for the rest of higher education. But it was a model not only of a powerful pedagogical process but of something else—something we see far too seldom in education.

During the last part of this Morbidity and Mortality conference, the facilitator noted that every major hospital has a problem with high infection rates in ICU's associated with running central lines, especially in the femoral artery. Unfortunately, it's easiest for medical practitioners to run a line in the femoral artery. (Perhaps running femoral lines is analogous to running lecture courses; they're not necessarily the most effective, but they deliver the goods to the largest number at the lowest cost.) In any case, the facilitator mentioned that Johns Hopkins had decided that the high infection rates were unacceptable. The medical school dean and the university president met with the teaching hospital staff and decided they knew enough to approach a zero percent rate of infection. The problem was not absence of knowledge of best practice, but absence of discipline and commitment to apply that knowledge. Therefore, they developed a rigorous protocol for running central lines.

The protocol involves things such as how carefully and frequently hands are washed, and not making things easier on oneself by using the same line to draw blood and to deliver medication because the odds for an infection zoom up every time that happens. Nurses enforce the protocol and oversee each procedure, and nurses are empowered to abort a procedure as soon as they see protocol being violated, whether by an intern or by the department chair. Early on in this new routine, every nurse was handed two phone numbers—the home phones of the medical school dean and the university president—and

told that if a physician didn't follow protocol and refused to abort the procedure, they were to phone one of these numbers, even at 3 a.m. That only happened once. The infection rate at Johns Hopkins for that procedure is now approaching zero.

Like infection rates, the failures of education are often procedural. In the M&M conference, the discussion of acceptable levels of infection sounded like arguments about acceptable levels of student failure. If one-third of students drop out in the first year, some may be ready to claim that those students simply shouldn't have entered college. What if a hospital said that if it lost a third of its patients, those patients never should have been admitted because they were too sick? Faculty and teaching institutions face many impediments, just like physicians; the conditions and capabilities of our students are often unknown. But what if at some universities the president was called every time a student failed? This proposal sounds crazy, I know, but that's just the point. We're too comfortable with our failures; we take them for granted. The good news is that we can do much better. We know a great deal today about how to organize our institutions and classrooms so that students not only stay but achieve at high levels, and research in the cognitive sciences and other fields provides grist for further improvements. I know we lack the resources. I know we lack the administrative and policy support. I know that some students we inherit are already deeply wounded. Nevertheless, we need to ask much more of ourselves. Education is no place for modest ambitions.



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